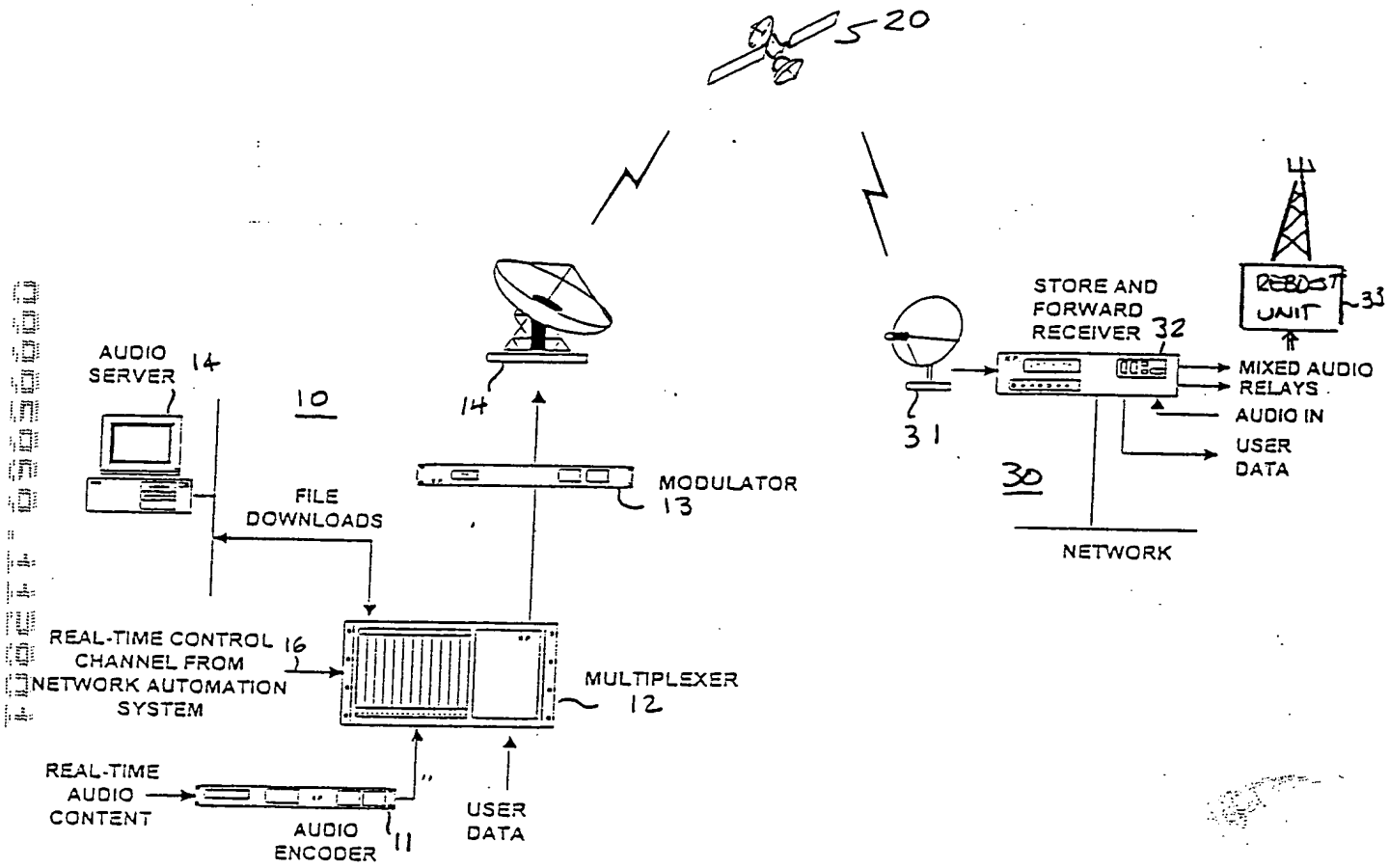
20
AUDIO SERVER
14
10
14
STORE AND FORWARD RECEIVER
32
REBOOT UNIT
33
MIXED AUDIO RELAYS
AUDIO IN
USER DATA
31
30
NETWORK
MODULATOR
13
FILE DOWNLOADS
REAL-TIME CONTROL CHANNEL FROM NETWORK AUTOMATION SYSTEM
16
MULTIPLEXER
12
REAL-TIME AUDIO CONTENT
AUDIO ENCODER
11
USER DATA

FIGURE 1.

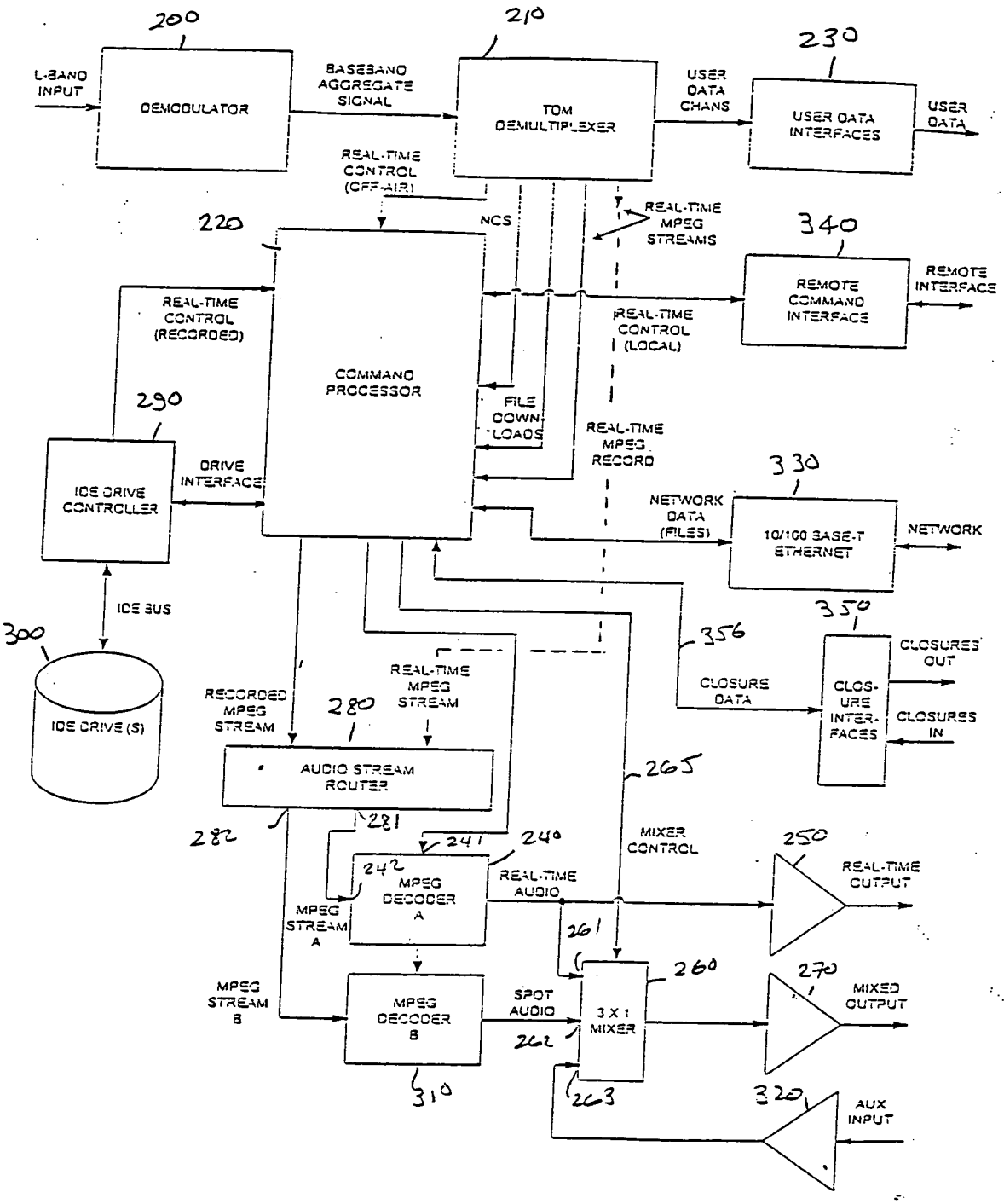
200
L-BAND INPUT
DEMODULATOR
BASEBAND AGGREGATE SIGNAL
210
TDM DEMULTIPLEXER
USER DATA CHANS
230
USER DATA INTERFACES
USER DATA
REAL-TIME CONTROL (OFF-AIR)
NCS
REAL-TIME MPEG STREAMS
220
340
REMOTE COMMAND INTERFACE
REMOTE INTERFACE
REAL-TIME CONTROL (RECORDED)
REAL-TIME CONTROL (LOCAL)
COMMAND PROCESSOR
FILE DOWN-LOADS
REAL-TIME MPEG RECORD
290
IDE DRIVE CONTROLLER
DRIVE INTERFACE
330
NETWORK DATA (FILES)
10/100 BASE-T ETHERNET
NETWORK
350
IDE BUS
300
IDE DRIVE (S)
356
CLOSURES OUT
CLOSURE DATA
CLOS-URE INTER-FACES
CLOSURES IN
RECORDED MPEG STREAM
REAL-TIME MPEG STREAM
280
AUDIO STREAM ROUTER
265
282
281
241
240
MIXER CONTROL
250
242
MPEG DECODER A
REAL-TIME AUDIO
REAL-TIME OUTPUT
MPEG STREAM A
261
260
270
MPEG STREAM B
MPEG DECODER B
SPOT AUDIO
3 X 1 MIXER
MIXED OUTPUT
262
263
310
320
AUX INPUT

FIGURE 2.

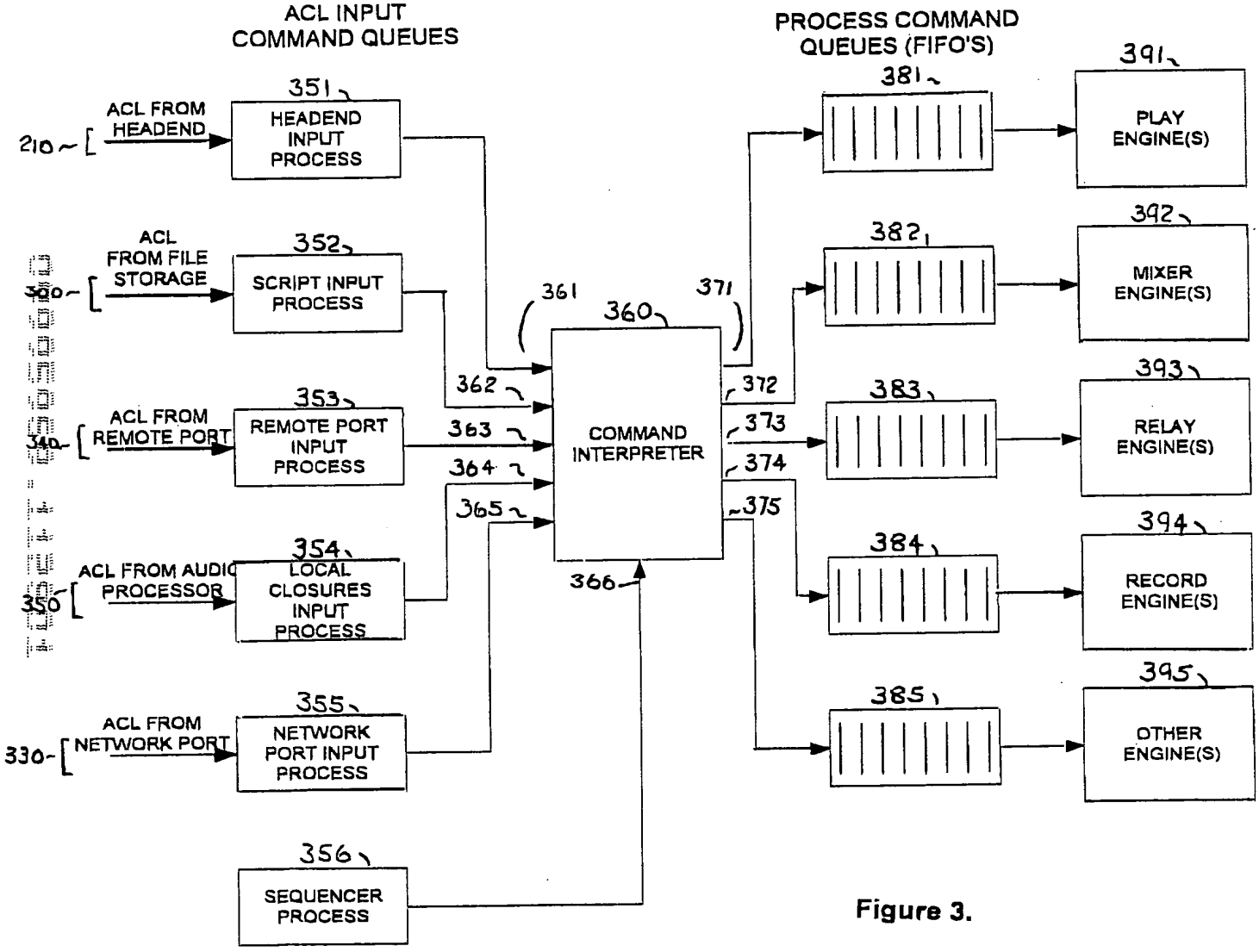
ACL INPUT COMMAND QUEUES
PROCESS COMMAND QUEUES (FIFO'S)
ACL FROM HEADEND
210
351
HEADEND INPUT PROCESS
ACL FROM FILE STORAGE
352
SCRIPT INPUT PROCESS
ACL FROM REMOTE PORT
353
REMOTE PORT INPUT PROCESS
ACL FROM AUDIO PROCESSOR
354
LOCAL CLOSURES INPUT PROCESS
ACL FROM NETWORK PORT
355
NETWORK PORT INPUT PROCESS
356
SEQUENCER PROCESS
361
360
371
COMMAND INTERPRETER
362
363
364
365
366
372
373
374
375
381
382
383
384
385
391
PLAY ENGINE(S)
392
MIXER ENGINE(S)
393
RELAY ENGINE(S)
394
RECORD ENGINE(S)
395
OTHER ENGINE(S)

Figure 3.

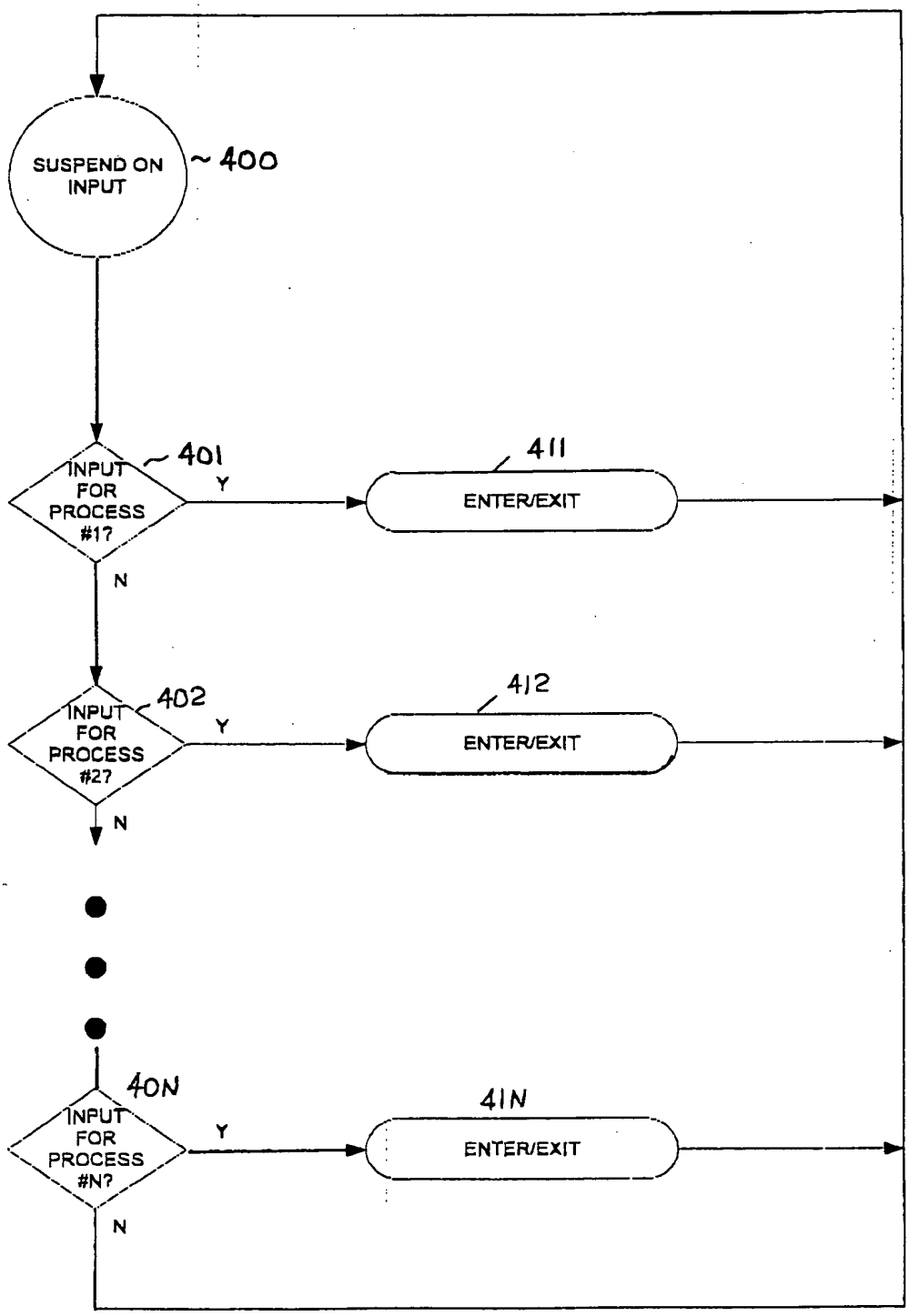
SUSPEND ON INPUT
400
INPUT FOR PROCESS #1?
401
Y
411
ENTER/EXIT
N
INPUT FOR PROCESS #2?
402
Y
412
ENTER/EXIT
N
INPUT FOR PROCESS #N?
40N
Y
41N
ENTER/EXIT
N

FIGURE 4.

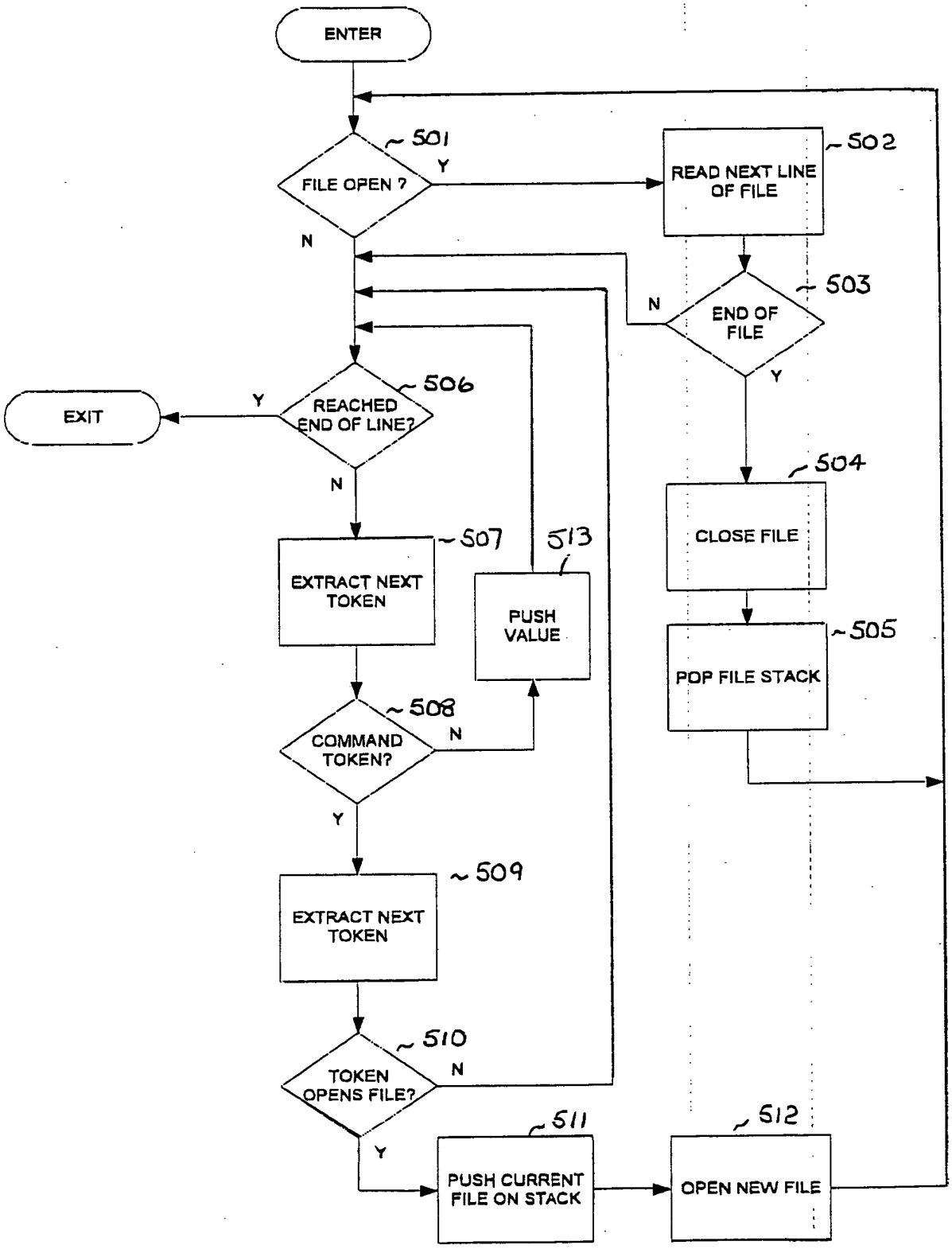
ENTER
501
FILE OPEN ?
Y
N
502
READ NEXT LINE OF FILE
503
END OF FILE
N
Y
504
CLOSE FILE
505
POP FILE STACK
506
REACHED END OF LINE?
Y
EXIT
N
507
EXTRACT NEXT TOKEN
513
PUSH VALUE
508
COMMAND TOKEN?
N
Y
509
EXTRACT NEXT TOKEN
510
TOKEN OPENS FILE?
N
Y
511
PUSH CURRENT FILE ON STACK
512
OPEN NEW FILE

FIGURE 5.

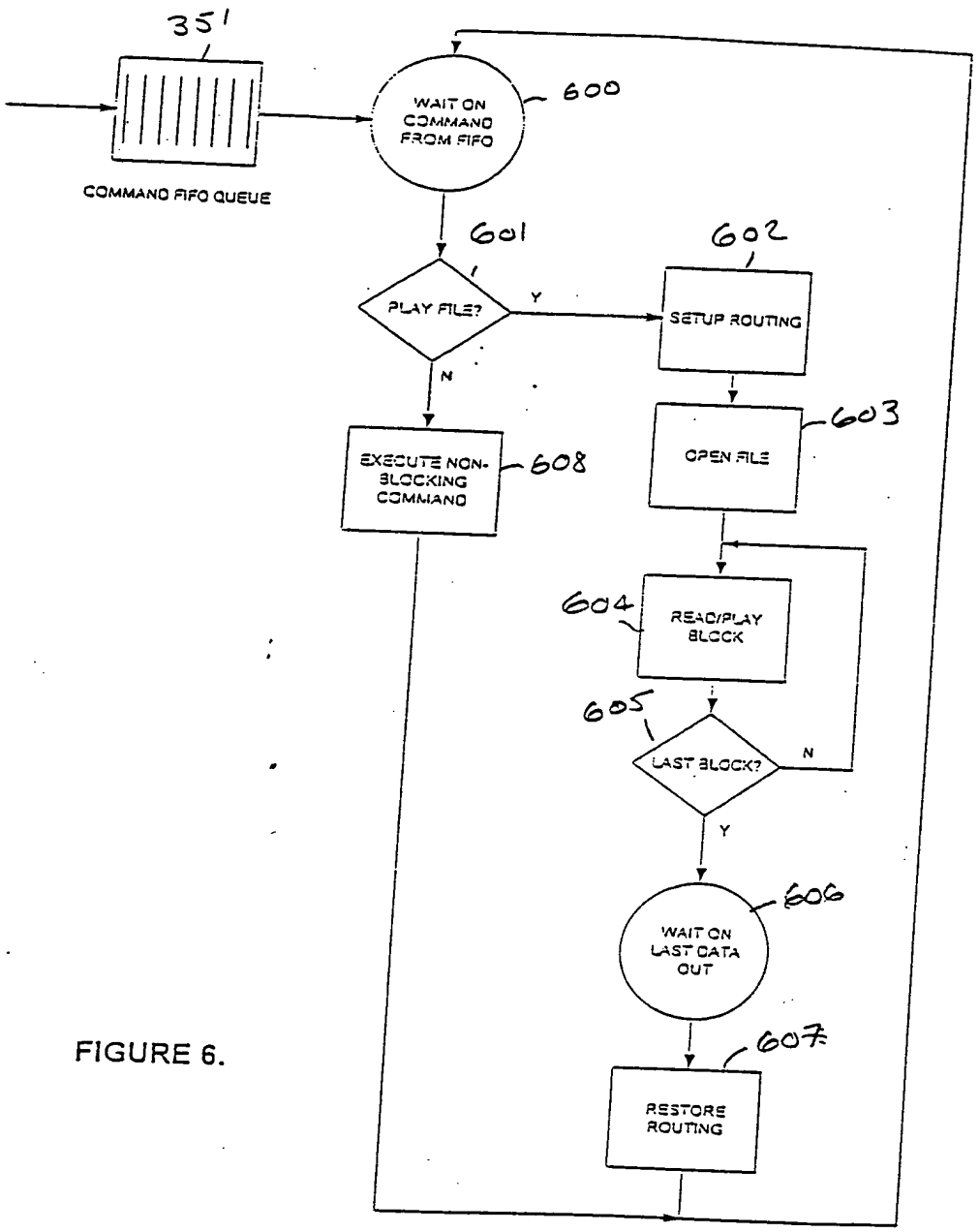
351
COMMAND FIFO QUEUE
WAIT ON COMMAND FROM FIFO
600
601
PLAY FILE?
Y
N
602
SETUP ROUTING
603
OPEN FILE
EXECUTE NON-BLOCKING COMMAND
608
604
READ/PLAY BLOCK
605
LAST BLOCK?
N
Y
606
WAIT ON LAST DATA OUT
607
RESTORE ROUTING

FIGURE 6.

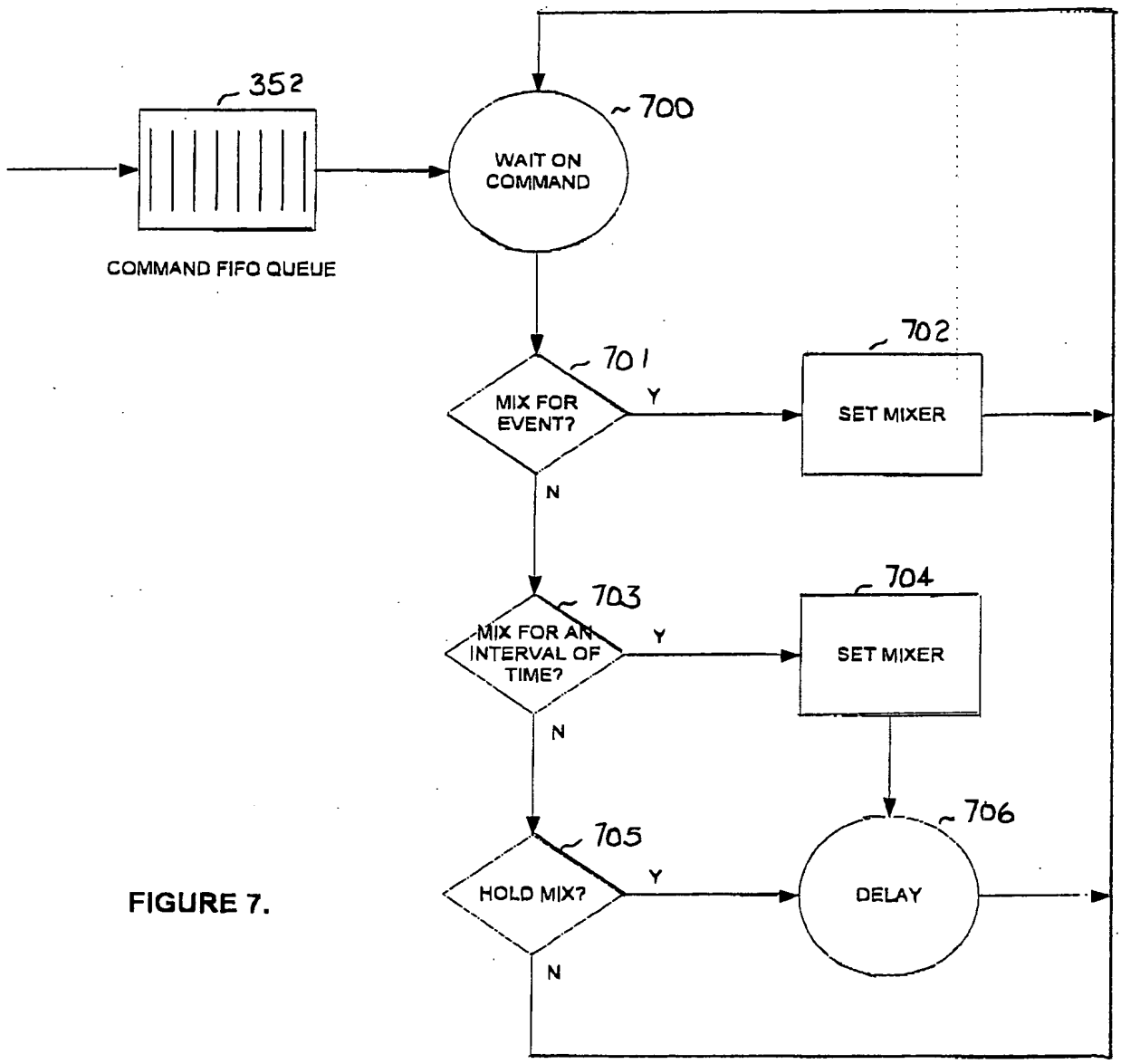
352
COMMAND FIFO QUEUE
700
WAIT ON COMMAND
701
MIX FOR EVENT?
Y
N
702
SET MIXER
703
MIX FOR AN INTERVAL OF TIME?
Y
N
704
SET MIXER
705
HOLD MIX?
Y
N
706
DELAY

FIGURE 7.

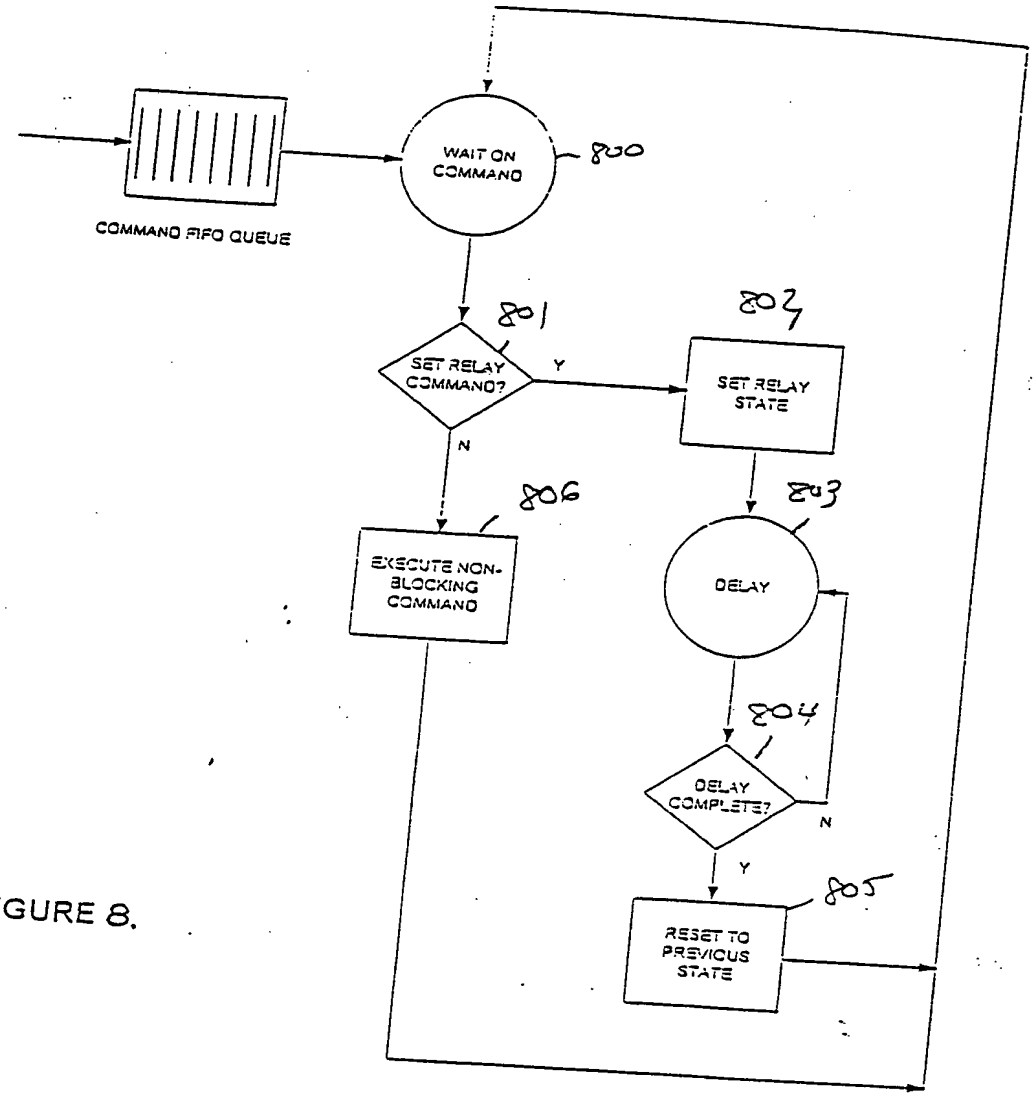
COMMAND FIFO QUEUE
WAIT ON COMMAND
800
801
SET RELAY COMMAND?
Y
N
802
SET RELAY STATE
803
DELAY
804
DELAY COMPLETE?
N
Y
805
RESET TO PREVIOUS STATE
806
EXECUTE NON-BLOCKING COMMAND

FIGURE 8.

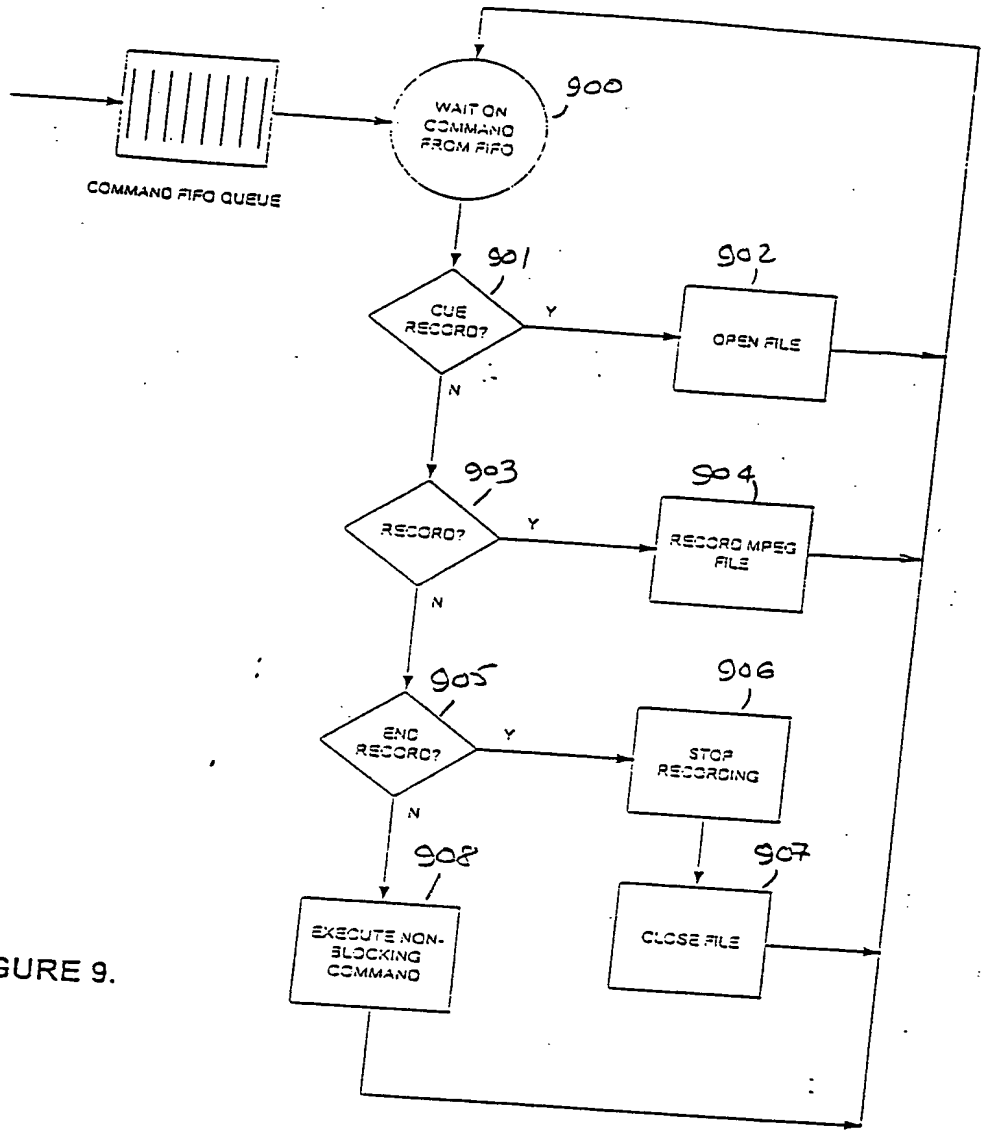
COMMAND FIFO QUEUE
WAIT ON COMMAND FROM FIFO
900
CUE RECORD?
901
Y
OPEN FILE
902
N
RECORD?
903
Y
RECORD MPEG FILE
904
N
ENC RECORD?
905
Y
STOP RECORDING
906
N
EXECUTE NON-BLOCKING COMMAND
908
CLOSE FILE
907

FIGURE 9.